

REMARKS/ARGUMENTS

Claims 2-9, 15-19 and 21 were pending in the application when the present Office Action was mailed. Claim 7 has been amended to correct certain typographical errors, and claim 21 has been amended to broaden the claim. No claims have been cancelled. Accordingly, claims 2-9, 15-19, and 21 remain pending.

In the Office Action, claims 2-9 and 15-19 were rejected, and claim 21 was allowed. More specifically, the status of the claims in light of the Office Action is as follows:

(A) Claims 2, 3, 5-9, 15, 16, 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application No. 0,351,217 to Goh ("EPO '217") in view of U.S. Patent No. 5,970,875 to Hoffmann et al. ("Hoffmann");

(B) Claims 4 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EPO '217 in view of Hoffmann and further in view of U.S. Patent No. 5,466,012 to Puckett et al. ("Puckett"); and

(C) Claim 21 was indicated to be allowable.

A. Response to the Section 103 Rejection of Claims 2, 3, 5-9, 15, 16, 18 and 19

Claims 2, 3, 5-9, 15, 16, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EPO '217 in view of Hoffmann. To establish a *prima facie* case of obviousness, the MPEP requires that the combined prior art references teach or suggest all the claimed features. (MPEP 706.02(j); emphasis added.) As discussed in greater detail below, the applied references of EPO '217 and Hoffmann cannot support a Section 103 rejection of claims 2, 3, 5-9, 15, 16, 18 and 19 for at least the reason that these references, either alone or in combination, fail to teach or suggest all the claimed features.

1. Independent Claim 2 is Directed to a Method for Providing a Voucher That Includes, *Inter Alia*, Placing Marks on a Substrate With a Marking Medium That has a First Appearance on the Substrate, but a Second Appearance in a Photocopy of the Substrate

Independent claim 2 is directed to a method for providing a voucher in a coin discriminator having a discriminator printer. The voucher is configured to assist in distinguishing unauthorized duplicate or counterfeit vouchers. The method includes, *inter alia*, placing visible marks on a first substrate with a marking medium. The visible marks have a first appearance on the substrate, but a photocopy of the visible marks has a second appearance that is different than the first appearance. In this respect, use of the marking medium prevents a photocopy of the voucher from being passed off as genuine. The method further includes using the discriminator printer to print at least first indicia on the substrate. The first indicia contains an indication of a value of the voucher.

2. EPO '217 is Directed to an Apparatus for Determining the Value of a Batch of Mixed Coins

As shown in Figure 2 of EPO '217, EPO '217 is directed to an apparatus for determining the value of a batch of coins, and includes a hopper unit 1 in which there is a rotatable disk 2. The rotatable disk 2 feeds coins from the hopper unit 1 in single file past a coin discriminator 6 to an escrow region 11. By selecting an appropriate actuator, a user may elect to receive a receipt for the coins inserted into the hopper unit 1.

3. Hoffmann is Directed to a Document Substrate Having a First Surface Configured to Receive a First Visual Image by Transfer From an Ink Ribbon, and a Second Surface Configured to Receive a Second Visual Image by Activation of a Pressure-Sensitive Chromogenic Coating

As shown in Figure 1 and explained in columns 4 and 5 of Hoffmann, Hoffmann teaches a document substrate 12 that is coated on an underside 18 with a pressure-sensitive chromogenic coating 14. The substrate 12 can be a paper web having a topside 16 that is not coated with the pressure-sensitive chromogenic coating 14. (Hoffmann col. 5; lines 40-45.) The substrate 12 is configured to simultaneously

receive visible images on both the topside 16 and the underside 18. As Hoffmann explains, an impact printer 114 having an inked ribbon 116 provides a principal image on the topside 16 of the substrate 12. The impact pressure of the stylus of the impact printer 114 simultaneously ruptures the pressure-sensitive chromogenic coating 14 on the underside 18 of the substrate 12, so that the coating 14 forms the mirror image of the principal image on the underside 18 of the substrate 12. (Col. 7 of Hoffmann, lines 27-49.)

The visual images simultaneously provided on both sides of the substrate 12 by the impact printer 114 are perfectly aligned with each other, and it is this feature of the substrate 12 of Hoffman that is intended to frustrate counterfeiters. For example, when a genuine version of the substrate 12 is viewed with a backlight, the visual images will perfectly overlap each other. However, if a counterfeiter attempts to reproduce the substrate 12 with a photocopier to create a fake, the counterfeiter will encounter difficulties aligning the images on both sides of the fake. (Col. 8 of Hoffman; lines 30-40.) As a result, when the fake substrate is viewed with a backlight, the visual images will not perfectly overlap each other, and the fake will be exposed.

4. EPO '217 and Hoffmann Cannot Support a Section 103 Rejection of Independent Claim 2 for at Least the Reason That These References Fail to Teach or Suggest a Marking Medium That has a First Appearance on a Substrate, but a Second Appearance in a Photocopy of the Substrate

The method of independent claim 2 includes placing visible marks on a substrate with a marking medium that has a first appearance on the substrate, but a different second appearance in a photocopy of the substrate. As the Office Action correctly states, EPO '217 fails to teach the use of such a marking medium. To overcome this shortfall, the Office Action turns to Hoffmann asserting "Hoffmann teaches that it is well-known in the art to place visible security marks on a substrate that have properties such that they have a second appearance when they are photocopied." Applicant respectfully disagrees with this assertion; nowhere does Hoffmann even suggest using visible marks that change appearance when photocopied. All Hoffmann teaches is a method for simultaneously creating marks on both sides of a substrate so that they will be automatically aligned with each other. In this way, Hoffmann hopes to frustrate

counterfeiters who try to replicate the substrate using a photocopy machine. The counterfeiters will be frustrated not because the marks produced by the photocopying machine will look any different than the original marks, but only because the marks will be misaligned from the front side to the back side of the substrate.

Applicants further submit that Hoffman teaches nothing more than the use of a typical impact printer 114 with a typical marking medium. (See column 7 of Hoffmann, II 30-44). If the Examiner persists in the assertion that Hoffmann teaches the use of a marking medium that changes appearance when photocopied, then applicants respectfully request that the Examiner specifically point out to applicants *where* in Hoffmann such a marking medium is taught. Absent such a teaching, EPO '217 and Hoffmann cannot support a Section 103 rejection of independent claim 2, and the rejection should be withdrawn.

Claims 3-5 depend from base claim 2. Accordingly, the applied references of EPO '217 and Hoffmann cannot support a Section 103 rejection of dependent claims 3-5 for at least the reasons discussed above with regard to the rejection of base claim 2, and for the additional features of these dependent claims. For example, dependent claim 5 recites that the marking medium of claim 2 includes fluorescent ink. Neither of the applied references teach or suggest the use of fluorescent ink. To overcome this deficiency, the Office Action simply asserts that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to use fluorescent ink, since it has been held to be within the general skill level of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 U.S.P.Q. 416." (Emphasis added.) Applicants respectfully disagree with this conclusory assertion. In *Leshin*, selection of a known plastic to make a container of a type made of plastics was held to be obvious. (MPEP 2144.07.) In the present case, however, neither of the applied references have identified an "intended use" for which florescent ink is a known suitable alternative. That is, neither of the applied references has identified an intended use for an ink that looks different in photocopies than it did when originally applied to a substrate. The reason for this is that neither of the applied references are even remotely concerned with this aspect of voucher production. Absent any clear teaching of an intended use

for fluorescent ink, it is inappropriate to assert that it would have been obvious to one of ordinary skill in the art to use such ink based on the teachings of Hoffman or EPO '217.

The MPEP clearly states, to establish a *prima facie* case of obviousness, the applied references must teach or suggest all of the claimed features. Neither EPO '217 nor Hoffman teach or suggest fluorescent ink. Therefore, the Section 103 rejection of dependent claim 5 should be withdrawn for at least this additional reason.

Claim 6 is directed to a method for providing a voucher in a coin discriminator having a discriminator printer. The method includes placing visible marks on a substrate using a fluorescent marking medium. For the reasons discussed above with regard to the rejection of claim 5, neither of the applied references of EPO '217 or Hoffmann teach or suggest the use of a fluorescent marking medium. Therefore, the rejection of claim 6 should be withdrawn.

5. Independent Claim 7 is Directed to a Method for Providing a Voucher in a Coin Discriminator That Includes, *Inter Alia*, Placing Visible Marks on a Substrate Positioned Less Than 0.25 Inch From an Edge of the Substrate

The method of claim 7 includes placing visible marks less than 0.25 inch from an edge of a substrate. Neither of the applied references of EPO '217 or Hoffmann teach or suggest such mark placement. Although the Office Action is somewhat vague as to the actual basis for the rejection of claim 7, it appears that the Office Action is attempting to establish a proper Section 103 rejection by simply asserting that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the indicia in any desired location, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70."

Applicants respectfully reject the supposition that the claimed mark placement is nothing more than "rearranging parts of an invention." As the specification of the present application clearly states, this mark placement can provide embodiments of the invention with advantages over other approaches:

[I]t is preferred that some or all anti-counterfeiting features described herein can be provided as pre-printing or pre-providing (i.e. can be provided on the paper stock or paper supply 226 before it is fed to the printer 18). This is particularly useful in connection with providing the edge printing 316 relatively close to the edges 318a, b since close-to-edge printing is a feature which is difficult to reproduce with many inkjet, laser, or other computer based printers (which often require a minimum space, such as a space no less than about 0.25 inch, between the paper edge and printing provided by such printer).

(Present Application No. 09/960,599; pg. 11, ll. 14-20.)

Neither EPO '217 nor Hoffman make any mention of voucher printing that is within 0.25 inch of an edge of a substrate. Absent any such teaching, it is inappropriate to assert that it would have been obvious to one of ordinary skill in the art to locate the indicia taught by EPO '217 or Hoffmann within 0.25 inch of the edge of a substrate, especially in light of the present application which teaches that such "close-to-edge printing is a feature which is difficult to reproduce with many inkjet, laser, or other computer based printers." Therefore, EPO '217 and Hoffmann cannot support a Section 103 rejection of claim 7, and the rejection should be withdrawn.

6. Independent Claim 8 Is Directed to a Method for Providing a Voucher in a Coin Discriminator That Includes, *Inter Alia*, Printing a First Language on a Substrate Oriented in a First Direction, and Printing a Second Language on the Substrate Oriented in a Second Direction at an Angle to the First Direction

The method of independent claim 8 includes printing a first language on a substrate in a first direction, and printing a second language on the substrate in a second direction that is at an angle relative to the first direction. Neither of the applied references of EPO '217 or Hoffmann teach or suggest such first or second languages in such orientations. The Office Action appears to acknowledge this conclusion, because it fails to identify where these claimed features are taught by the applied references. Instead, the Office Action simply asserts that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the indicia in any desired location, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70."

The MPEP requires that the Examiner properly communicate the basis for a rejection so that the issues can be identified early and the applicants can be given fair

opportunity to respond. (MPEP 706.02(j).) In the present case, applicants respectfully submit that the cursory assertion provided above does not suffice to properly communicate the basis for the rejection of the claim 8. As a result, applicants have not been given a fair opportunity to consider and respond to a properly framed *prima facie* rejection. For at least this reason, the rejection of claim 8 should be withdrawn.

Further, according to the MPEP, the applied references of EPO '217 and Hoffmann must teach or suggest first language and second language printed on a substrate at an angle relative to each other. Nowhere has the Office Action identified where the applied references teach or suggest such angled languages. Accordingly, the rejection of claim 8 should be withdrawn for this additional reason.

In addition, the MPEP clearly states that "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." (MPEP 2143.01; emphasis added.) In the Office Action, the Examiner has not cited a single prior art reference that suggests the desirability of the claimed arrangement of the first and second languages. Accordingly, applicants respectfully request that the Examiner cite a reference in support of his assertion that the claimed arrangement of the first and second languages of claim 8 would have been obvious to one having ordinary skill in the art. Absent such a cite, the rejection of claim 8 should be withdrawn.

Claim 9 depends from base claim 8. Accordingly, the applied references cannot support a Section 103 rejection of claim 9 for at least the reasons discussed above with regard to the rejection of claim 8, and for the additional features of claim 9. Therefore, the rejection of claim 9 should be withdrawn.

Claim 15 is directed to a method for providing a voucher that includes, *inter alia*, placing a series of identifier symbols on a first substrate, said series of identifier symbols being spaced from one another. EPO '217 and Hoffmann fail to teach or suggest such spaced apart identifier symbols. Accordingly, these applied references cannot support a Section 103 rejection of claim 15, and the rejection should be withdrawn. Furthermore, the Office Action fails to identify *where* the applied references

teach the claimed subject matter. In this regard, applicants respectfully submit that the Examiner has not communicated a properly framed *prima facie* rejection of claim 15. As a result, applicants have not been given a fair opportunity to consider and respond to a properly framed *prima facie* rejection. For at least this additional reason, the rejection of claim 15 should be withdrawn.

Claims 16, 18 and 19 depend from base claim 15. Accordingly, the applied references cannot support a Section 103 rejection of dependent claims 16, 18 and 19 for at least the reasons discussed above with regard to the rejection of base claim 15, and for the additional features of these dependent claims. Therefore, the rejection of dependent claims 16, 18 and 19 should be withdrawn.

B. Response to the Section 103 Rejection of Claims 4 and 17

Dependent claims 4 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EPO '217 in view of Hoffmann and further in view of Puckett. Claim 4 depends from base claim 2, and claim 17 depends from base claim 15. As discussed in detail above, EPO '217 and Hoffmann cannot support a Section 103 rejection of base claims 2 and 15. Further, Puckett does not cure the deficiencies of EPO '217 and Hoffmann in regard to the rejection of base claims 2 and 15. In fact, the Office Action only relies on Puckett to provide the thermal paper substrate recited in claim 4. Therefore, EPO '217, Hoffmann, and Puckett cannot support a Section 103 rejection of dependent claims 4 and 17 for at least the reason that these applied references cannot support a Section 103 rejection of corresponding base claims 2 and 15. Therefore, the rejection of claims 4 and 17 should be withdrawn.

The rejection of claim 4 should be withdrawn for an additional reason. Claim 4 is directed to the method of claim 2, and further recites that the substrate is thermal paper. To provide this feature, the Office Action points to Puckett, which mentions thermal paper in connection with a facsimile security system. However, as the MPEP clearly states, "A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made' because the references relied upon teach that all aspects of the claims invention were individually known in the art, is not sufficient to establish a

prima facie case of obviousness without some objective reason to combine the teachings of the references." (MPEP 2143.01; emphasis added.) In the Office Action, the Examiner asserts that it would have been obvious to modify Hoffmann with thermal paper as taught by Puckett to increase "the versatility of the printing process." This unsupported assertion, however, is insufficient to establish a *prima facie* case of obviousness because "the prior art must also suggest the desirability of the combination." (*Id.*; emphasis added.) In the present case, the Examiner has provided absolutely no indication of *where* the prior art suggests the desirability of modifying Hoffmann to include the thermal paper taught by Puckett. Absent the suggestion of the prior art, "the mere fact that references can be combined or modified does not render the resultant combination obvious." *Id.* Therefore, EPO '217, Hoffmann and Puckett cannot support a Section 103 rejection of dependent claim 4 for this additional reason, and the rejection should be withdrawn.

C. Response to the Indication that Claim 21 is Allowable

Applicants thank the Examiner for indicating that unamended claim 21 is allowable. However, applicants direct the Examiner's attention to the claims of parent U.S. Patent Application No. 09/422,917 (now U.S. Patent No. 6,349,972), and specifically, to claim 7 of U.S. Patent No. 6,349,972. As the Examiner will note, unamended claim 21 of the present application is at least generally similar, if not identical, to claim 7 of parent U.S. Patent No. 6,349,972. For this reason, claim 21 has been amended by this response to further clarify certain aspects of the claim. Applicants respectfully request reconsideration of claim 21 in light of the present amendment.

CONCLUSION

In view of the foregoing, a Notice of Allowance is respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 264-6351.

No fees are believed due with this communication, however, the Commissioner is hereby authorized and requested to charge any deficiency in fees herein to Deposit Account No. 50-0665.

Respectfully submitted,
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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

7. (Amended) A method for providing a voucher in a coin discriminator, having a discriminator printer, with the voucher configured to assist in distinguishing unauthorized duplicate or counterfeit vouchers, the method comprising the steps of:

placing visible marks on a ~~first~~ substrate positioned less than 0.25 inches from an edge of said ~~medium~~substrate; and

using said discriminator printer to print, on said substrate, at least first indicia containing an indication of a value of said voucher.

21. (Amended) Apparatus for use in outputting ~~results~~ a voucher from a coin discriminator having a discriminator printer, with the voucher configured to assist in distinguishing unauthorized duplicate or counterfeit vouchers, comprising:

~~a computer coupled to said printer;~~

a thermal paper substrate having

at least first language printed on said thermal paper substrate, oriented in a first direction, using a fluorescent ink such that said first language has a first appearance on said thermal paper substrate but wherein a photocopy of first language has a second appearance, different from said first appearance;

at least second language printed on said thermal paper substrate oriented in a second direction about 90 degrees to said first direction positioned less than 0.25 inches from an edge of said thermal paper substrate;

~~a substantially non-visible mark on said thermal paper substrate wherein when said non-visible mark is rubbed with a coin, portions of said coin adhere to said non-visible mark to render said mark visible;~~ a plurality of perforations in said thermal paper substrate defining a first curved pattern of microperforations which includes a region defining a radius of curvature;

~~wherein said thermal paper substrate has marked thereon, at least an initial serial number identifying a unit of said thermal paper substrate;~~

said thermal paper substrate located in a position from which said thermal paper substrate can be fed to said discriminator printer; and

~~i/O means for inputting said serial number into said computer;~~

means for controlling said discriminator printer to print, on said thermal paper substrate, at least first indicia containing an indication of a value of said voucher;

~~means for controlling said discriminator printer to print a number related to said serial number on said thermal paper substrate; and~~

~~a plurality of perforations in said medium defining a first curved pattern of microperforations which includes a region defining a radius of curvature less than about 0.5 inches.~~